

# **Chapter: Perspectives on SDG indicators to assess the impact of transnational fisheries crime on the blue economy and anti-corruption: The case of abalone in South Africa**

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## **ABSTRACT**

It's clear from the recent literature that environmental governance related to marine resources and especially transnational fisheries crime in the blue economy and corruption are receiving increasing attention and that a need exists to improve our understanding of how these factors impact on the attainment and measurement of the Sustainable Development Goals (SDGs). The relative scope, size and impact, both positive and negative, that transnational fisheries crime in the blue economy and corruption have on the achievement of the SDGs are vastly underestimated. This Chapter argues that a need exists to develop monitoring and evaluation systems that can articulate such SDG impacts, using specific outcomes and indicators for this purpose. This Chapter has selected three (3) SDGs to illustrate the importance of further indicator development in this field. These include SDG 14 (Life below water), SDG 17 (Strengthen and revitalize global partnerships) and SDG 16 (Peace, justice and strong institutions). Although it is not possible to cover all existing indicators in the field of transnational fisheries crime in the blue economy and corruption, a specific emphasis have been placed on SDG indicators that involve partnerships with communities to address especially poaching in Coastal areas and a case study of the South African Abalone situation will be presented. This study examines the nature of transnational fisheries crime in the blue economy and corruption, their socio-economic consequences on a regional, national and international level with respect to the SDGs. An effort will be made to analyse the SDGs with respect to transnational fisheries crime and corruption to determine a framework for the assessment of socio-economic benefits and costs with respect to the SDGs.

## **KEYWORDS**

Keywords: Sustainable Development Goals (SDGs), Environmental Fisheries Crime, Socio-Economic indicators; Illegal Abalone Poaching; Community of practice (CoPs); Transnational Organised Crime, Anti-corruption, Monitoring and Evaluation (M&E), Local Economic Development (LED), Illegal Unreported Unregulated (IUU).

## **1. INTRODUCTION AND BACKGROUND**

Although the UN SDGs emphasise the need to stop illicit poaching and trafficking of wildlife, with a focus on implementation, preservation and by promoting the sustainable use of ecosystems, in actual fact, nearly 7,000 species of animals and plants are still in illegal trade involving 120 countries (UNDP 2015:2). This reality and other statistics that show a significant negative impact on the attainment of the SDGs warrant an emphasis on the development of national monitoring and evaluation systems, in order to provide evidence-based information on the nature and scale of especially transnational fisheries crime on under-sea marine resources. A need exists to establish a compendium of indicators to assess such impact against the SDGs by using selected SDG Indicators for this purpose.

This Chapter promotes a shift from regarding transnational fisheries crime and illegal abalone poaching as a criminal activity only but rather argues that a sustainable marine management solution needs to be found that provides socio-economic alternatives to poaching communities. It is thus imperative that SDG indicators also include anticipated outcomes that may assess the positive results of the successful management and regulation of illegal unreported and unregulated (IUU) fishing include abalone poaching in such communities. Such community-based indicators have also been proposed for the consideration of an SDG indicator framework for the poaching of marine resources and fisheries crime.

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It is of scholarly importance that research, as well as monitoring and evaluation in the maritime sector, be effectively utilised as a basis for policymaking, thereby narrowing the gap between research and policymaking on a wide range of maritime challenges facing Africa as a continent, which is emerging as a global economic actor in the 21st Century.

## 2. FISHERIES CRIME AND ANTI-CORRUPTION

Environmental crime covers activities ranging from illegal logging, illegal trade in ozone-depleting substances, dumping and illegal transport of hazardous wastes, to unreported fishing. It often includes a transnational dimension, which makes it highly profitable. It poses serious threats to the environment, contributing to poverty and food insecurity. It can deteriorate the state due to organised crime activities and corruption (Transparency International 2012:3). The recent joint UNEP and INTERPOL ‘Environmental Crime Crises’ report describes illegal fishing as comprising a

*‘rapidly rising threat to the environment, to revenues from natural resources, to state security, and to sustainable development’.*

Fisheries crime refers to a range of serious offences committed along the entire fisheries value chain. Offences occur both on- and off-shore, at one or more stages along the value chain, and frequently in combination. These crimes extend into the trade, ownership structures and financial services associated with the fishing sector at the top but also local communities and criminal syndicates at the local level (Witbooi, 2014:293).

### IUU FISHING AND CRIMES RELATED TO FISHERIES AS TRANSNATIONAL ORGANIZED FISHERIES CRIME



Source: SANTOSA M.A 2018, Combating IUU fishing and fisheries Crime 2018, presentation at the 4th International Symposium on Fisheries Crime, 15 October 2018, Copenhagen.

The various types of offences, such as corruption, fraud and forgery, tax and customs evasion undermine the vital roles of the fisheries sector by depriving states of valuable sources of income. This adversely affects coastal communities’ livelihoods, and undermines fisheries management and conservation efforts, resulting in overfishing and depletion of fish stocks (International Symposium on Fisheries Crime 2019:7).

Figure 1 advocates for a classification of IUU fishing as part of fisheries crime, together with transnational organised fishing activities and related offences, The African Union's Integrated Maritime Strategy identifies illegal fishing as one of the key threats to and vulnerabilities in the African maritime domain and 2014 Africa Progress Report highlights the billions lost to illegal and ‘shadowy practices’ in fishing on the African continent (De Coning & Witbooi 2015). A very articulate and descriptive perspective on the term “fisheries crime” has been provided by the by FAO, the State of World Fisheries and Aquaculture (2018:2) as encompassing:

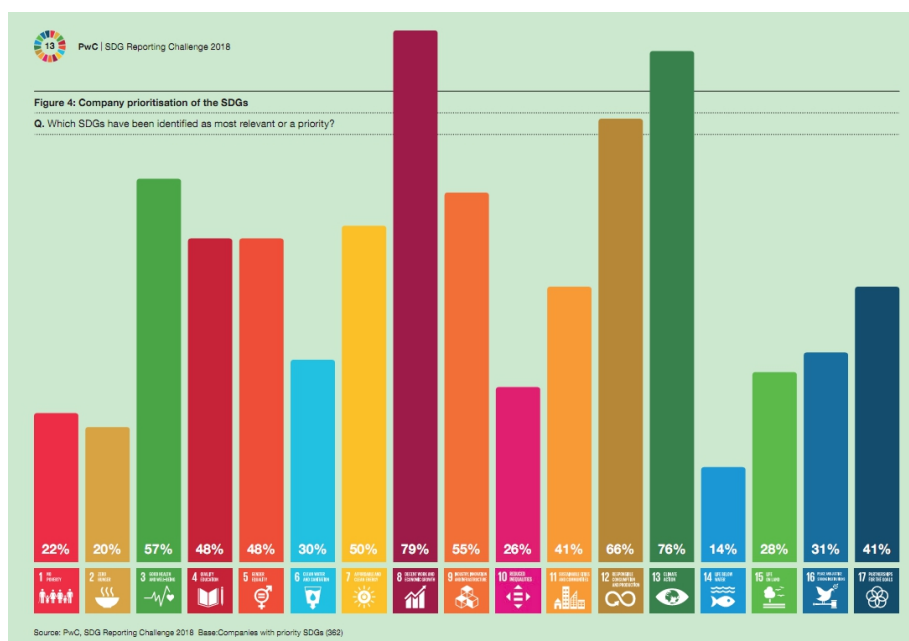
*... a range of serious offences that can occur at each stage of the fisheries value chain. The crimes extend to activities not directly linked to fishing, for instance fraud and forgery, money-laundering and financial services. Investigating corruption can sometimes be the best way to accumulate proof that these crimes have been committed, as documentary evidence and money trails are left in the wake of certain types of large-scale corruption in the fisheries sector. The creation and implementation of regulatory and law enforcement frameworks assume good governance but is often undermined by the existence of corruption. If resources are allocated to these frameworks but do not address corruption effectively, the potential impact of those resources is diminished significantly. In many jurisdictions, penalties for corruption convictions are much greater than those associated with illegal fishing convictions, and consequently,*

*successful prosecution and sentencing of cases involving corruption can have the benefit of acting as a deterrent for future criminal behavior. Additionally, the corruption that facilitates fisheries crimes will often take place on land, within a single jurisdiction, which makes investigation, prosecution and conviction more achievable. This is in contrast to illegal, unreported and unregulated (IUU) fishing, which often takes place in international waters across multiple jurisdictions. (FAO, the State of World Fisheries and Aquaculture 2018:2)*

Corruption can also be considered as a catalyst for environmental crime. In particular, corruption plays an important role in facilitating the practice of illegal, unreported and unregulated (IUU) fishing. Corruption, in this case, may affect a variety of actors, including local communities, local gangs and crime syndicates, customs officials, the police, shipping firms, and exporters/importers. As was noted above, in the case of South Africa, poaching, corruption and organised crime are linked in the case of abalone (see discussion below).

### 3. OVERVIEW OF SDGs AND SELECTED PRIORITY AREAS

Although all SDGs relate directly to transnational fisheries crime in the blue economy and illegal abalone poaching, this Chapter has selected three (3) SDGs to illustrate the importance of further indicator development in this field. These include SDG 14 (Life below water), SDG 16 (Strengthen and revitalize global partnerships) and SDG 17 (Peace, justice and strong institutions). These SDGs are briefly discussed below.



Source: PwC, SDG Reporting Challenge 2018 Base Companies priority SDGs (362)

The figure illustrates that Goal 14 (life below water) has been identified as least relevant or a priority among the SDGs (PwC Reporting 2018:362). All possible SDGs that Organised Crime and Fisheries Crime are involved with, although authors only select and focus SDGs 14, 16 and 17. In terms of Organised Crime, the authors suggested special indicators in partnerships (SDGs 17) as all the security agencies must be involved in the government level to ensure partnerships to achieve inter-agency cooperation.

In the context of the above, this Chapter provides additional indicators in the above areas for consideration in respect of the SDGs concerning illegal fishing and related areas. New proposed indicators include specific indicators in the above SDG areas concerning:

- 1) Outcomes-based indicators for the organised crime linked to fisheries, corruption and linked to anti-poaching and local communities;
- 2) Specific indicators in Fisheries Crime related to focus on the role of coastal communities in poaching linked to economic partnerships linked to LED;
- 3) The need for M&E establishment of a system that goes beyond the national government to include regional and international levels, involving multi-lateral organisations.

Table 1: Selected SDG priority targets for transnational fisheries crime in the blue economy

SDG 14 Life below water	<p>14.2 by 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans</p> <p>14.4- end overfishing, illegal, unreported and unregulated (IUU)fishing</p> <p>14.6- Prohibit fisheries subsidies that contribute to overcapacity and overfishing, eliminate subsidies that contribute to IUU fishing</p> <p>14.7 by 2030 increase the economic benefits to SIDS and LDCs from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism</p>
SDG 16 Peace Justice and Strong Institutions  (SDGs 16 = Enabler for many other SDGs)	<p>16.3- Improve the rule of law and access to justice</p> <p>16.4- Reduce illicit financial and arms flows, organised crime</p> <p>16.5-Reduce corruption and bribery</p> <p>16.6-Develop effective, accountable and transparent institutions</p> <p>16.10- Access to information and fundamental freedoms</p>
SDGs 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development	<p>17.6 enhance North-South, South-South, and triangular regional and international cooperation on and access to science, technology, and innovation, and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, particularly at UN level, and through a global technology facilitation mechanism when agreed</p> <p>17.16 Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries enhance North-South, South-South, and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism</p> <p>17.17 encourage and promote effective public, public-private, and civil society partnerships, building on the experience and resourcing strategies of partnerships</p> <p>17.18 by 2020, enhance capacity-building support to developing countries, including for LDCs and SIDS, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts</p>

Source: UN Working Group (UNDP, PBSO, DPKO, RoLUnit and others): “Compiled list of potential indicators”, 2014; Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs), 2016, Final list of proposed Sustainable Development Goal indicators (E/CN.3/2016/2/Rev.1), Annex IV;

#### 4. SDGS GOAL 14: CONSERVATION AND SUSTAINABLY OF OCEANS, SEAS AND MARINE RESOURCES

As reported above and as can be seen from the illustration, SDG Goal 14 has been much under-emphasised. Other than key issues regarding the conservation and sustainable use of marine resources, this Goal also has reference to issues such as the global fishing industry that is functioning as an indispensable supplier of essential nutrition and that represents an important food safety net in many vulnerable regions globally. The fishing industry has also reported being one of the largest employers in the world and the UN Food and Agriculture Organisation (FAO) has estimated that almost 80 million people are employed in this industry.

Linked to the above, it is therefore clear that the conservation and sustainable use of marine resources should be seen as pillars in achieving the SDGs. However, an important factor and approach that is often not considered with respect to the conservation and sustainable use of marine resources in terms of the positive and negative effects of the SDGs is that illegal fishing and other forms of criminality in this field are having a major impact both with respect to the harm that is caused to marine resources, whilst on the other, it has become part of the value change (even albeit illegal) of livelihoods of many communities where illegal fishing provides employment and much-needed nutrition to impoverished communities.

This factor is, in fact, a major consideration as the UN FAO concluded that up to 75% of the world’s fish stocks are either fully exploited, overexploited, or depleted, that is attributed largely to the practice of illegal, unreported and unregulated (IUU) fishing. (UNCTAD / FAO / UNEP 2018). The practice depletes fish stocks; destroys natural habitats, leading to species becoming seriously threatened; reduces biodiversity, which in turn causes imbalances among species; and adversely affects ecosystems ... (that) ... may lead to a reduction of human food sources due to a scarcity of fish, hindering the achievement of Goal 2 namely ending hunger and achieving food security (UNCTAD / FAO / UNEP 2018).

By far one of the most neglected areas of environmental crime, illegal fishing is also probably one of the most extensive in geographical terms. It estimated that the annual global IUU fishing catch was between 1126 million tons, which equates to more than 1,800 pounds of wild-caught fish stolen from our seas every second... In purely economic terms, this annual catch has been estimated at US\$1023 billion. As much as 30% of the total catch in some fisheries, as well as 50% of the landings in some ports, may consist of IUU fish (UNCTAD / FAO / UNEP 2018).

The UN FAO reported that about 50% of fish exports derive from developing countries and that IUU fishing undermines legitimate fishing competition, adversely affecting the livelihoods and economies in coastal communities, thereby impacting goals on poverty reduction and cause mass over-fishing to the point that it is estimated that 75% of the world's fish stocks are overexploited (UN FAO, UNODC, 2011b).

As is clear from the case study on Abalone below, poaching in endangered marine life, such as abalone, have reduced stocks to alarming levels where the resource has been threatened that even more so increases the attraction for organised crime syndicates. The illegal fishing industry has been extensively linked to other serious forms of organised crime also linked to human rights issues (UNODC, 2011b).

The factoring in of all of these variables in measuring the attainment of the SDGs is, therefore, no easy task. One of the building blocks in addressing this challenge is the development of M&E systems than can produce credible and trustworthy information in this field.

## **5. GOAL 16: THE PROMOTION OF PEACEFUL AND INCLUSIVE SOCIETIES AND THE BUILDING OF INSTITUTIONS AT ALL LEVELS**

Following the above perspective on SDG 14, it is clear that organised crime is linked to illegal fisheries and that the negative impacts on marine resources and the environment are substantive. In this process the functioning of the judiciary, together with the presence of accountable and effective institutions are important factors in ensuring peaceful societies. The United Nations has consistently emphasised the critical importance of strengthening and consolidating security and justice in the perspective of the rule of law, as being a precursor and necessary condition for achieving stable and peaceful societies (UNDP, PBSO, DPKO, RoLUnit and others 2014:16).

It is also noteworthy that the UN Secretary-General statement in 2004, where the “inextricable link” between security, human rights, and development, was pointed out, has formed an important basis for focusing on this dimension with respect to SDGs. This dimension also concerns cycles of conflict, poverty and human vulnerability linked to the above (UNDP, PBSO, DPKO, RoLUnit and others 2014:13; IAEG-SDGs, 2016:5). Then UN General Assembly has also confirmed the link between the rule of law and broader development goals, It was noted that:

*‘We are convinced that the rule of law and development are strongly interrelated and mutually reinforcing, that the advancement of the rule of law at the national and international levels is essential for sustained and inclusive economic growth, sustainable development, the eradication of poverty and hunger and the full realization of all human rights and fundamental freedoms, including the right to development ...’*

In the long term, a global strategy to counter organised crime is needed based on partnerships and cooperation. This will promote a more strategic and coordinated approach to counter organised crime by facilitating action at national, regional and international levels (UNDP 2015:5). As this study demonstrates, the challenge is multi-faceted, with impacts across a range of domains from humanitarian, to developmental, yet there is currently limited institutional arrangements that facilitate collaboration between the stakeholders. A good example is that poaching, corruption, and organised crime are linked in the case of abalone in South Africa whilst at the same time, and local communities that are involved in poaching are in need of alternative local economic development (LED) opportunities so that an alternative income may be created to find a viable solution to poaching. For such arrangements to work, local partnerships between the community, local government, and other agencies need to be facilitated.

## **6. GOAL 17: STRENGTHENING IMPLEMENTATION AND REVITALISING GLOBAL PARTNERSHIPS**



Much of the debate on organised crime has been about the regulation and enforcement of such practices. In respect of transborder issues, national governments have often not seen eye to eye on mutual responsibilities and collaborative approaches. A need, therefore, exists for continued cooperation at the strategic level, as well as to assess these impacts on SDGs.

Linked with SDG Goal 16, it is clear that corruption and organised crime has exacerbated the problem. This discussion also showed that the existing institutional arrangements are insufficient and do not allow for innovation and experimentation (UNDP, PBSO, DPKO, RoLUnit and others 2014:16).

The debate on the above-mentioned anticipated outcomes of SDG 17 shows that a need exists for states most affected by the impact of organised crime to engage in partnerships to collectively address these challenges as well as to cooperate on M&E and evidence-based decision-making. In the context of this Chapter, debates around organised crime also require a much broader range of stakeholders to be present and engaged including greater involvement of the private sector and cooperation with civil society in order to secure sustainable partnerships.

A need exists to strengthen the means of implementation through partnerships with local communities that are involved in poaching to find a viable solution to poaching and sustainable solutions for the environment. Local partnerships are dependent on cooperative partnerships at national government level as well as other agencies for implementation to work. Success in implementation in this respect is therefore dependent on recognition of the context, LED and anti-poaching programmes with good content, adequate capacity, commitment from all roll-players and coalitions as well as good coordination and communication, with reference to the 7C Protocol for implementation (Cloete, et. al. Chapter 9, 2016).

## 7. ADDITIONAL INDICATORS PROPOSED FOR FISHERIES CRIME, CORRUPTION AND ANTI-POACHING OF MARINE RESOURCES

With respect to additional proposed indicators, the discussion below provides a summary of these indicators according to the SDGs subsections. Existing indicators are deemed very important but are not repeated here (see Table with selected SDG targets, above).

Goal 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development), relates to **14.2**, (By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their **resilience**, and take action for their **restoration** in order to achieve healthy and productive oceans). The additional indicators proposed in this area include:

- % of surface areas where cooperative partnerships have been agreed by local communities to resolve (minimize) poaching.
- % of protecting marine and coastal ecosystems where cooperative partnerships have been agreed by local communities to resolve (minimize) poaching.
- % of protected marine and coastal ecosystems areas where resilience have been strengthened.
- % of protected marine and coastal ecosystems areas where successful restoration has taken place.
- % increase in states and countries where the proportion of national exclusive economic zones are promoted and managed using ecosystem-based approaches (UN SDG14.2.1).

Goal 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development), relates to **14.6** (By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation. The additional proposed indicators in this area include:

- % increase in states and countries that are implementing international instruments aiming to combat illegal, unreported and unregulated fishing successfully. (UN SDG 14.6.1)
- % decrease in form of the fishery of subsidies which contribute over capacity and over Fishing.
- % decrease in the elimination of subsidies that contribute to illegal unreported and unregulated fishing. (IUU)
- % of new subsidies been introduced.

- % increase of income-generating activities for the local community involved in parching.
- % increase in subsidies to increase local economic development LED.

Goal 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development), relates to 14.7 (By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture, and tourism. The additional proposed indicators in this area include:

- % increase the economic benefits to small communities along with coastal areas.
- % increase in GDP relates to sustainable fisheries of small communities.

Goal 16 (Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels), relates to 16.3 (Promote the rule of law at the national and international levels and ensure equal access to justice for all). The additional indicators proposed in this area include:

- % decrease in the proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms. (UN SDG16.3.1)
- % decrease in the proportion of victims of violence who reported their victimization.
- % decrease in unsentenced detainees as a proportion of the overall prison population. (UN SDG16.3.2)
- % increase in unsentenced detainees as a proportion of the overall prison population.

Goal 16 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development), relates to 16.10 (Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements). The additional indicators proposed in this area include:

- % increase in information related to Illegal fisheries crime anti-corruption poaching.
- % Increase in public access.
- % of the country and states where fundamental of freedoms and national legislation, the International agreement has been protected.

Goal 17 (Strengthen the means of implementation and revitalize the Global Partnership for Sustainable), relates to 17.6 (Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism) The additional indicators proposed in this area include:

- % increase in the number of partnerships aimed at illegal fisheries anti-corruption and poaching.
- % increase in the number of different OC units participating in partnership to combat illegal fisheries anti-corruption and poaching.
- % increase in the number of international partnerships to combat illegal fisheries anti-corruption and poaching.
- % increase in partnerships that increase knowledge sharing and innovative technology.
- % increase in partnerships where coordination improved among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.
- % increase in partnerships in science and/or technology cooperation agreements and programmes between countries (UN SDG 17.6.1).
- % or Number of science and/or technology, cooperation agreements and programmes between countries, by type of cooperation (UN SDG 17.6.1).

Goal 17 (Strengthen the means of implementation and revitalize the Global Partnership for Sustainable), relates to 17.16 (Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries enhance North-South, South-South, and triangular regional and international cooperation

on and access to science, technology, and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism) The additional indicators proposed in this area include:

- Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of sustainable development goals (UN SDG 17.16.1)

Goal 17 (Strengthen the means of implementation and revitalize the Global Partnership for Sustainable), relates to Multi-stakeholder partnership 17.17 (Encourage and promote effective public, private and civil society partnerships, building on the experience and resourcing strategies of partnerships) The additional indicators proposed in this area include:

- % increase in public, private and civil society partnerships, to combat Illegal fisheries crime anti-corruption poaching.
- % increase in civil society partnerships with coastal communities involved in poaching to combat Illegal fisheries crime anti-corruption poaching.
- % increase in civil society partnerships with municipalities to agree on Local Economic Development (LED) Plans to offer alternative income-generating opportunities
- % increase in available funding committed to public, private and civil society partnerships
- % increase in inter-agency cooperation within states and all countries
- % increase in partnerships that promote collaboration with respect to the interface between blue and green economic growth.

Goal 17 (Strengthen the means of implementation and revitalize the Global Partnership for Sustainable), relates to Data, monitoring and accountability 17.18 (By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics Encourage and promote effective public, private and civil society partnerships, building on the experience and resourcing strategies of partnerships). The additional indicators proposed in this area include:

- % increase in the Proportion of sustainable development indicators produced at the national level with full disaggregation. (UN SDG 17.18.1)
- % increase of countries that have established M&E systems to improve data Monitoring and accountability to measure Illegal fisheries crime anti-corruption poaching.
- % increase in countries that have established results-based M&E systems that are linked to their National M&E Systems to improve evidence-based decision-making to measure Illegal fisheries crime anti-corruption poaching.
- Number of countries with a national statistical plan that is fully funded and under
- implementation, by the source of funding (UN SDG 17.18.3)

## 8. CASE STUDY OF ABALONE IN SA

In South Africa, illegal fishing takes place in both the commercial sector as well as in small-scale fisheries. The case study by Chen (Chen & Lovell, 2014:55; Chen 2018:3) that are used in this Chapter, shows that poaching in the abalone sector provides an apt example of the latter category. The abalone fishery in South Africa is recognised as one of the most difficult fisheries to manage due to a combination of factors including its inshore nature, the adverse impact of ecological factors on its stock, its high value and, importantly, the increasing organised black market trade in abalone since the 1990s. The combined effects of these factors led to an 88% decrease in the total allowable catch (TAC) of the species from the 1995/1996 season to the 2007/2008 season and culminated in the complete closure of the fishery in 2008. Attempts to curb illegal harvest in this sector have been largely unsuccessful not least in part due to the problematic socio-political history of abalone rights in the country in terms of which traditional fishers were deprived of legal harvesting rights under the former Apartheid regime (De Coning & Witbooi 2015:3).

Further, links with organised criminal networks, with the resultant entrenchment of criminal elements in local fishing communities, have complicated the matter, demanding that solutions be sought outside the normal fisheries management sphere. Initial efforts, which focused primarily on bolstering enforcement, were



subsequently supplemented by increasingly progressive (at least theoretically) access policies that sought to facilitate community involvement in, and (partial) ownership of, the management of coastal resources.

It is estimated that the illegal abalone trade is worth \$440 million annually, more than 10 times the size of the legal market. Due to increased level of illegal poaching, the South African abalone was listed on the CITES Appendix III in 2007, until it was withdrawn 3 years later. The estimated number of illegally harvested abalone has risen from 4 million a year in 2008 to 7 million in 2016 Hong Kong is the epicentre of the global abalone trade. From 200 to 2015, around 76% of the imported abalone was sold locally, with the rest being re-exported to China Indonesia or other Asian countries.

South Africa has been named as one of the oldest commercial abalone fisheries in the world. SA ranks as one of the top five to ten wild abalone fisheries in the world behind the abalone fisheries of Australia and Japan. It employs about 27000 people and produces fish with a total wholesale value of over R1000 million 16 per cent of the total amount of marine fish species in the world. Unfortunately, most of these have at some time or other been over-exploited.

Although this Chapter does not deal with the detailed nature of Abalone poaching during the various stages (Chen & Lovell, 2014:66; Chen 2018:5) for a detailed discussion in this respect, this case does show that a sustainable solution for Abalone poaching will only be found if partnerships are entered into with local communities that provide for alternative sources of income for such households.

## **9. MONITORING AND EVALUATION (M&E) SYSTEMS FOR TRANSNATIONAL FISHERIES CRIME IN THE BLUE ECONOMY AND ANTI-CORRUPTION**

Existing M&E systems are large to be found at the head of national governments. Transnational fisheries crime in the blue economy also requires M&E systems at the global level in order to track monitor transnational fisheries crime and corruption at a global level, also for SDG purposes. The discussion above shows that the establishment of M&E systems in this field is an important priority and that global partnerships to develop such operational partnerships to cooperate and to coordinate such efforts are inadequate.

M&E has become prominent in the last two decades as a valuable discipline, together with policy analysis and Knowledge Management (KM), in order to provide evidence-based information. M&E also focuses on the outcomes and impacts rather than relying on information management only. In this respect, practitioners have largely used the approaches of Kusek & Rist (2004:23), as well as evaluation scholars such as Clarke and Fetterman (Kusek & Rist, 2004:31; Cloete & De Coning, 2016:67). Valuable theoretical frameworks and conceptual approaches exist in the field of M&E as applied to public and development management (Cloete, Rabie and De Coning 2014:33; Cloete & De Coning, 2016:89).

The establishment of M&E systems requires the advancement and development of indicator frameworks, agreement on the M&E process by major stakeholders as well as establishing the necessary institutional arrangements to manage such a system (Cloete, Rabie, and De Coning 2014:65). Although the debate on anticipated outcomes and indicator development has been active, as has been discussed earlier in this Chapter, the establishment of an actual M&E system, beyond that of national governments, remain an important priority. Not only is there a lack of capacity and transparency from some national governments to manage such systems efficiently, but in most instances, illegal fishing and corruption are simply beyond the control or influence of national governments. This Chapter does not allow for a full exposition of systems establishment and the reader is referred to the existing body of knowledge as contained in the sources reference above.

## **10. CONCLUSIONS AND RECOMMENDATIONS**

Although environmental governance related to marine resources and especially transnational fisheries crime in the blue economy and corruption are receiving increasing attention, the ability of the international community to address these issues are limited to the actions and discretion of individual governments. In addition to institutional arrangements to govern and regulate the fishing industry and various other important political, economic and social factors, a need also exists for improved monitoring systems in order to provide evidence-based information for decision-making, also to support multi-lateral efforts to address this aspect, also as related to the attainment and measurement of the Sustainable Development Goals (SDGs).

This Chapter has argued that the impact, both positive and negative, that transnational fisheries crime on the blue economy and corruption have on the achievement of the SDGs is vastly underestimated. This Chapter argued that a need exists to develop monitoring and evaluation systems that can articulate such SDG impacts,

using specific outcomes and indicators for this purpose. This Chapter also selected three (3) SDGs to illustrate the importance of further indicator development in this field. These include SDG 14 (Life below water), SDG 17 (Strengthen and revitalize global partnerships) and SDG 16 (Peace, justice and strong institutions). Although it is not possible to cover all existing indicators in the field of fisheries and transnational fisheries crime in the blue economy and corruption, a specific emphasis have been placed on SDG indicators that involve partnerships with communities to address especially poaching in Coastal areas and a case study of the South African Abalone situation was presented.

It is recommended that:

- Further outcomes-based indicators development be undertaken to establish a coherent and comprehensive compendium of indicators for transnational fisheries crime in the blue economy and corruption also with reference to coastal communities and associated poaching.
- Such an indicator framework should address the nature of transnational fisheries crime in the blue economy and corruption not only from a regulatory point of view but as a major force in socio-economic development, impacting on poverty and livelihoods in developing countries.
- A collaborative approach is followed in establishing a multi-lateral M&E system to facilitate cooperation and ensure coordination of the establishment of such a system.
- An approach is supported that promotes M&E systems that transcend the present scope on national government level only so that seamless monitoring may be achieved by establishing an M&E system at the regional level, such as the AU and international level with respect to the SDGs at the level of the UN.

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### **APPENDIX: SDGs 14, 16, 17, Propose Indicators Summery**

SDGs	Anticipated outcome	Propose Indicator
Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development	14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	<ul style="list-style-type: none"> <li>✧ % of surface areas where cooperative partnerships have been agreed by local communities to resolve (minimize) poaching</li> <li>✧ % of protecting marine and coastal ecosystems where cooperative partnerships have been agreed by local communities to resolve (minimize )poaching</li> <li>✧ % of protected marine and coastal ecosystems areas where resilience have been strengthened.</li> <li>✧ % of protected marine and coastal ecosystems areas where successful restoration has taken place</li> <li>✧ % increase in states and countries where the proportion of national exclusive economic zones are promoted and managed using ecosystem-based approaches. (Source: UN SDG14.2.1)</li> </ul>
	14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	<p><b>Indicators of Political will</b></p> <ul style="list-style-type: none"> <li>✧ Number of States with national legislation that addresses in an effective manner all aspects of IUU fishing. (National legislation should address, inter alia, evidentiary standards and admissibility including, as appropriate, the use of electronic evidence and new technologies.) (Source: FAO, national legislation and reporting)</li> <li>✧ Number of regional, bilateral, and/or multilateral agreements addressing in an effective manner all aspects of IUU fishing (Source: Regional and international reporting, NGO reporting, media reporting)</li> <li>✧ Number of States and/or regional organisations utilising The Oceans Compact, or other guides to regulating the maritime activity, to strengthen the implementation of UNCLOS (Source: UN reporting, national and regional reporting)</li> <li>✧ Number of States that have adopted appropriate trade-related measures, consistent with the WTO, that deter IUU fishing. This includes stock or species-specific trade-related measures to reduce or eliminate the economic incentive for vessels to engage in IUU fishing (Source: WTO, national legislation and reporting)</li> </ul>

SDGs	Anticipated outcome	Propose Indicator
		<p><b>Indicators of Effective Prevention and Protection</b></p> <ul style="list-style-type: none"> <li>✧ The percentage increase of the market share of fish subject to managed-catch regimes Source: Consumer groups, market research surveys, environment and food ministries</li> <li>✧ Number of countries and private and international partners monitoring and collecting data on Fishing Source: FAO, national reporting, NGO reporting</li> <li>✧ Number of alternative sustainable livelihoods options offered in littoral nations, by State Source: National and NGO reporting</li> <li>✧ Number of States with comprehensive and effective monitoring, control and surveillance (MCS) of fishing from its commencement, through the point of landing, to the final destination Source: FAO, national reporting</li> </ul> <p><b>Indicators of Successful Prosecution</b></p> <ul style="list-style-type: none"> <li>✧ Number of cases brought under UNCLOS for illegal fishing Source: UN-Legal Affairs (UNCLOS Secretariat)</li> <li>✧ Number of perpetrators of IUU fishing adjudicated, convicted, and serving sentences (by type of sentence), by State Source: National criminal justice records</li> <li>✧ Number and frequency of major ports visited and inspected by inspection teams charged with inspecting fishing fleets. Source: National reporting, media reports</li> </ul>
	14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that	<p>% increase in states and countries that are implementing international instruments aiming to combat illegal, unreported and unregulated fishing successfully(UN SDG 14.6.1)</p> <p>% decrease in form of the fishery of subsidies which contribute overcapacity and overfishing</p> <p>% decrease in the elimination of subsidies that contribute to illegal unreported and unregulated fishing</p> <p>% of new subsidies been introduced</p> <p>% increase of income-generating activities for local community involvement in parching</p> <p>% increase of subsidies to increase local economic development LED</p>
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	appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation	
	14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	<ul style="list-style-type: none"> <li>✧ % increase the economic benefits to small communities along with coastal areas</li> <li>✧ % increase in GDP relates to sustainable fisheries of small communities</li> </ul>
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all	<ul style="list-style-type: none"> <li>✧ % decrease in the proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms (UN SDG16.3.1)</li> <li>✧ % decrease in the proportion of victims of violence who reported their victimization</li> <li>✧ % decrease in Unsented detainees as a proportion of the overall prison population(UN SDG16.3.2)</li> <li>✧ % increase in unsented detainees as a proportion of the overall prison population</li> </ul>

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SDGs	Anticipated outcome	Propose Indicator
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	<p>16.4 By 2030, significantly reduce illicit financial and arms flow, strengthen the recovery and return of stolen assets and combat all forms of organized crime</p> <p>Indicators</p> <p>16.4.1 Total value of inward and outward illicit financial flows (in current United States dollars)</p> <p>16.4.2 Proportion of seized small arms and light weapons that are recorded and tracked, in accordance with international standards and legal instruments</p>	<p><b>Indicators of Political will</b></p> <ul style="list-style-type: none"> <li>✧ Number of States to ratify and fully implement the UN Transnational Organized Crime convention (UNTOC) and its protocols. Source: UNODC</li> <li>✧ Number of States to ratify the Arms Trade Treaty without reservation Source: UN Office for Disarmament Affairs</li> <li>✧ Number of States that have to implement standardised licensing requirements for all exporters of SALW Source: WTO, other intergovernmental/regional bodies, national economic ministries</li> <li>✧ Number of States that have created intergovernmental and regional partnerships to fight money laundering Source: Media reports, official press releases</li> </ul> <p><b>Indicators of Effective Prevention and Protection</b></p> <ul style="list-style-type: none"> <li>✧ Number of States with local, national and/or regional focal points to coordinate efforts to stop SALW trafficking at their respective levels Source: UN agencies, regional intergovernmental bodies, national police forces and ministries, media reports</li> <li>✧ Number of public-private partnerships to help victims of SALW, by State Source: National and NGO reporting</li> <li>✧ Percent increase in the number of people and organisations/agencies monitoring restorative and retributive justice Source: National justice records and budgets</li> <li>✧ Number of States which have created intergovernmental and regional partnerships to fight money Laundering Source: Media reports, official press releases</li> </ul> <p><b>Indicators of Successful Prosecution</b></p> <ul style="list-style-type: none"> <li>✧ Number of perpetrators of SALW trafficking arrested, adjudicated, convicted, and serving sentences (by type of sentence), by State</li> </ul>
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		<p>Source: National criminal justice records</p> <ul style="list-style-type: none"> <li>✧ Number of perpetrators arrested, adjudicated, convicted, and serving sentences (by type of sentence) for committing financial crimes or engaging in illicit financial flows, by State Source: National criminal justice records</li> <li>✧ Number of States that have established money-laundering and asset-seizure protocols Source: Reports and rankings from FATF, Egmont Group, and regional associations</li> </ul>
	<p>16.5 Substantially reduce corruption and bribery in all their forms</p> <p>Indicators</p> <p>16.5.1 Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months</p> <p>16.5.2 Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official or were asked for a bribe by those public officials during the previous 12 months</p>	<p><b>Indicators of Political will</b></p> <ul style="list-style-type: none"> <li>✧ Number of States that have ratified the UN Convention against Corruption without reservation. Source: UN Secretariat, UNODC</li> <li>✧ Frequency by State, regional, and international organisation relevant legal instruments and administrative measures are evaluated to determine their adequacy to prevent and combat corruption Source: National and regional reporting, UNODC</li> </ul> <p><b>Indicators of Effective Prevention and Protection</b></p> <ul style="list-style-type: none"> <li>✧ Number of States with specialised national bodies in place, with the necessary independence and sufficient resourcing, to combat corruption Source: National reporting</li> <li>✧ Number of States with practical anti-corruption training programmes in place, and frequency of training Source: National legislation and reporting</li> <li>✧ Number of civil society coalitions, lobby-bodies to advocate for and denounce cases of corruption Source: National, NGO reporting</li> <li>✧ Number of incidents of official collaboration between States, regional and international organizations to promote and develop measures to combat corruption Source: National, regional and international reporting, UNODC</li> <li>✧ Number of countries and international partners monitoring and collecting data on corruption related to organized crime</li> </ul>
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SDGs	Anticipated outcome	Propose Indicator
		<p>Source: Transparency International, National reports</p> <ul style="list-style-type: none"> <li>Number of mechanisms through which citizens can report corruption, by State</li> </ul> <p>Source: Transparency International, national reporting</p> <ul style="list-style-type: none"> <li>Number of States with robust protection from all forms of retaliation for whistleblowers who report corruption related to organised crime</li> </ul> <p>Source: Transparency International, national reporting</p> <p><b>Indicators of Successful Prosecution</b></p> <ul style="list-style-type: none"> <li>Value of assets seized or frozen in relation to corruption, by State</li> </ul> <p>Source: National justice records</p> <ul style="list-style-type: none"> <li>Number of individuals arrested, adjudicated, convicted, and serving sentences (by type of sentence) for corruption offences, by State</li> </ul> <p>Source: National criminal justice records</p> <ul style="list-style-type: none"> <li>Number of instances of international cooperation or mutual legal assistance in transnational corruption cases relating to organised crime</li> </ul> <p>Source: National justice systems, police records</p>
	<p>16.6 Develop effective, accountable and transparent institutions at all levels</p> <p>Indicators</p> <p>16.6.1 Primary government expenditures as the proportion of original approved budget, by sector (or by budget codes or similar)</p> <p>16.6.2 Proportion of the population satisfied with their last experience of public services</p>	<p><b>Indicators of Political will</b></p> <ul style="list-style-type: none"> <li>Number of States that have improved their World Governance Indicators scores</li> </ul> <p>Source: World Bank</p> <ul style="list-style-type: none"> <li>Number of States that have improved their overall Rule of Law Scores</li> </ul> <p>Source: Transparency International</p> <ul style="list-style-type: none"> <li>Number of States which ban anonymous donations to political parties and candidates</li> </ul> <p>Source: National and regional reporting, non-governmental organisations (watch-dog organisations), IDEA</p> <p><b>Indicators of Effective Prevention and Protection</b></p> <ul style="list-style-type: none"> <li>Number of public-private partnerships to increase citizen oversight of local governance</li> </ul> <p>Source: National and NGO reporting</p> <ul style="list-style-type: none"> <li>Number of countries that solicit—and, when warranted, act on—input from civil society in the process</li> </ul>
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		<p>of developing and approving national budgets</p> <p>Source: National reports of organisations consulted, corroborated by reports from the organisations themselves</p> <ul style="list-style-type: none"> <li>Number of States with effective external communication systems in place allowing for open communication with the private sector</li> </ul> <p>Source: National, non-governmental organisation, and private sector reporting</p> <ul style="list-style-type: none"> <li>Number of States assessed as having a free press</li> </ul> <p>Source: Freedom of the Press Ranking, NGO reporting</p> <p><b>Indicators of Successful Prosecution</b></p> <ul style="list-style-type: none"> <li>Percent increase in finance provided to institutions enforcing political finance regulations, by State</li> </ul> <p>Source: IDEA, national budgets</p> <ul style="list-style-type: none"> <li>Number of perpetrators of illicit political financing and strategic violence arrested, adjudicated, convicted, and serving sentences (by type of sentence), by State</li> </ul> <p>Source: National criminal justice records</p> <ul style="list-style-type: none"> <li>Number of States and international partners monitoring and collecting data on illicit political financing and strategic violence</li> </ul> <p>Source: IDEA, Transparency International, national reports</p>
	<p>16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements</p>	<ul style="list-style-type: none"> <li>% increase in information related to illegal fisheries crime anti-corruption poaching.</li> <li>% Increase in public access</li> <li>% of the country of states where fundamental of freedoms and national legislation and international agreement have been protected</li> </ul>
Goal 17. Strengthen the means of implementation and revitalize the Global	<p>Technology</p> <p>17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access</p>	<ul style="list-style-type: none"> <li>% increase in the number of Ps aim at illegal fisheries anti-corruption and poaching</li> <li>% increase in the number of different OC units participating in partnership to combat illegal fisheries anti-corruption and poaching</li> <li>% increase in the number of international partnerships to combat illegal fisheries anti-corruption and</li> </ul>

SDGs	Anticipated outcome	Propose Indicator
Partnership for Sustainable Development	to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism Indicators 17.6.1 Number of science and/or technology cooperation agreements and programmes between countries, by type of cooperation	poaching <ul style="list-style-type: none"> <li>✧ % increase in partnerships that increase knowledge sharing and innovative technology.</li> <li>✧ % increase in partnerships where coordination improved among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.</li> <li>✧ % increase in partnerships in science and/or technology cooperation agreements and programmes between countries</li> </ul>
	17.16 Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries	<ul style="list-style-type: none"> <li>✧ Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of sustainable development goals (UN SDG 17.16.1)</li> </ul>

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	Multi-stakeholder partnerships 17.17 Encourage and promote effective public, private and civil society partnerships, building on the experience and resourcing strategies of partnerships	17.17.1 Amount of United States dollars committed to public-private and civil society partnerships <ul style="list-style-type: none"> <li>✧ % increase in public, private and civil society partnerships, to combat illegal fisheries crime anti-corruption poaching.</li> <li>✧ % increase in civil society partnerships with coastal communities involved in poaching to combat illegal fisheries crime anti-corruption poaching.</li> <li>% increase in civil society partnerships with municipalities to agree on Local Economic Development (LED) Plans to offer alternative income-generating opportunities</li> <li>✧ % increase in available funding committed to public, private and civil society partnerships</li> <li>✧ % increase in inter-agency cooperation within states and all countries</li> <li>✧ % increase in partnerships that promote collaboration with respect to the interface between blue and green economic growth.</li> </ul>
	Data, monitoring and accountability 17.18 By 2020, enhance capacity-building support to developing countries, including for least, developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national context	<ul style="list-style-type: none"> <li>✧ % increase in the Proportion of sustainable development indicators produced at the national level with full disaggregation. ( UN SDG 17.18.1)</li> <li>✧ % increase of countries that have established M&amp;E systems to improve data monitoring and accountability to measure illegal fisheries crime anti-corruption poaching.</li> <li>✧ % increase of countries that have established results-based M&amp;E systems that are linked to their National M&amp;E Systems to improve evidence-based decision-making to measure illegal fisheries crime anti-corruption poaching.</li> <li>✧ %Number of countries with a national statistical plan that is fully funded and under implementation, by the source of funding (UN SDG 17.18.3)</li> </ul>

Source: Concluded methodology from the UN Report and various sources, the indicators proposed /developed as a contribution that authors made in this research.

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